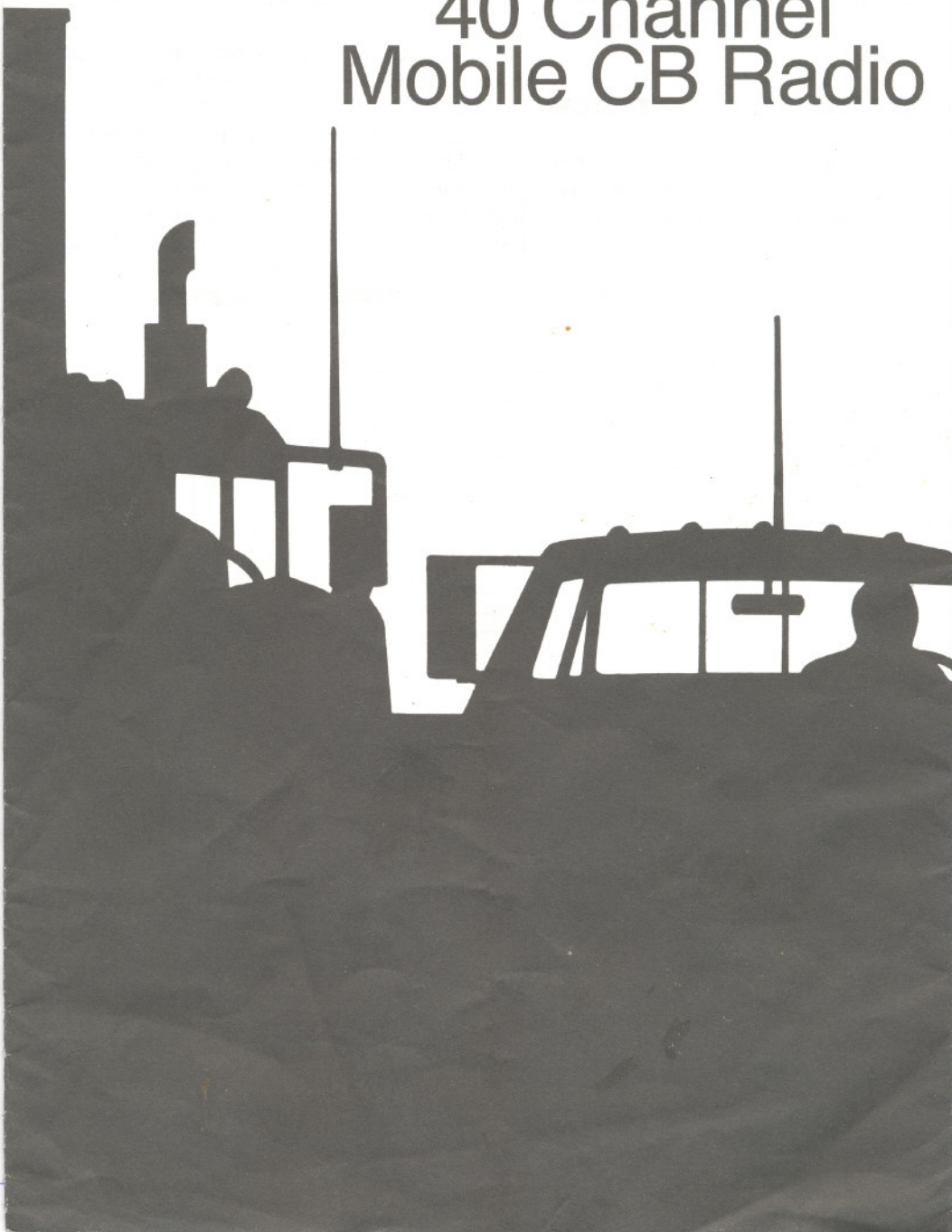


**uniden®**

**PC33X**

**40 Channel  
Mobile CB Radio**



## INTRODUCTION

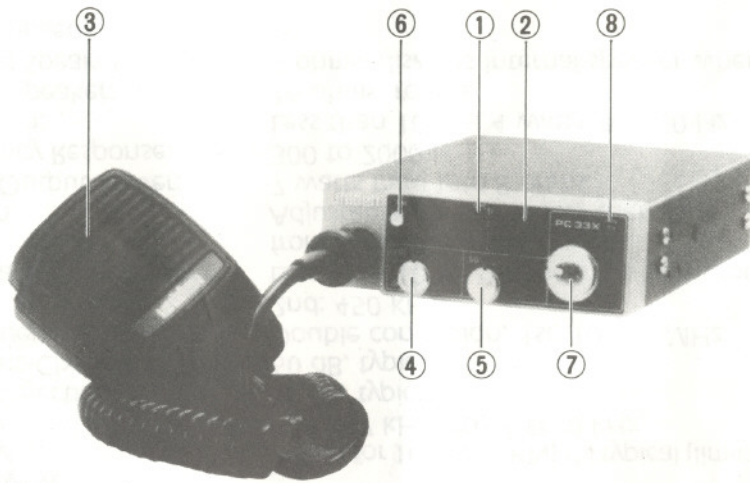
Your UNIDEN Model PC33X represents the most advanced Mobile station type radio ever designed for use in the Citizens Band Radio Service. It will operate on any of the 40 frequencies designated as citizens band channels by the Department of Communications. Your Model PC33X features a frequency synthesizing circuit with PHASE LOCKED LOOP techniques to assure ultraprecise Frequency control. This radio has been Type Accepted and Type Certified by the D.O.C.

### WARNING

Before transmitting with your transceiver, you must obtain a Department of Communications (D.O.C.) Citizens Radio Licence. Obtain an application form, from the D.O.C. Before completing the form you should read the conditions governing the licensing and operation of the C.R.S. (D.O.C. brochure RB 14). This brochure also can be obtained from the D.O.C. After completing the application form, mail it with the appropriate fee to the Superintendent Regulatory of Licensing in the State or territory in which the station will be operated.



## CONTROLS AND THEIR FUNCTIONS



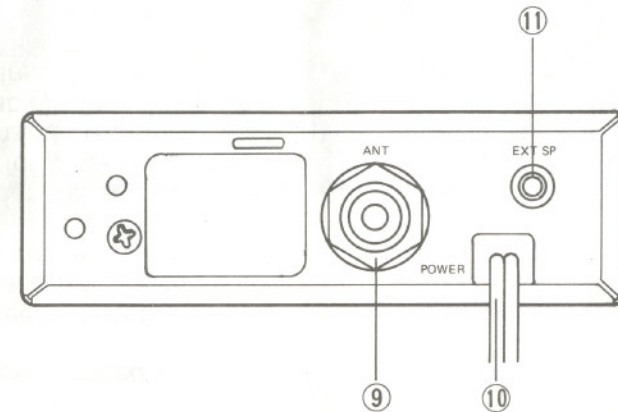
- 1. RF POWER/"S" METER:** This Light Emitting Diode (LED) meter shows the Radio Frequency power when transmitting and the strength of the incoming signal when receiving.
- 2. CHANNEL INDICATOR:** Light Emitting Diode (LED) indicates the channel number in use.
- 3. PRESS-TO-TALK MICROPHONE:** The receiver and transmitter are controlled by the press-to-talk switch on the microphone. Press the switch to activate the transmitter; release the switch to receive. When transmitting, hold the microphone two inches from the mouth and speak clearly in a normal voice. The microphone provided with your radio is a detachable low impedance dynamic type.
- 4. OFF/VOL. CONTROL:** Turn clockwise to apply power to the radio and to set the audio volume to the desired listening level. Turn fully counter clockwise to turn the radio OFF.

- 5. SQUELCH CONTROL:** This Squelch Control is rotated to cut off or eliminate received background noise in the absence of an incoming signal. For maximum receive sensitivity, it is desired that the control be rotated only to this point where the receive background noise or ambient background noise is eliminated. Turn the control fully counter clockwise, then slowly rotate clockwise until the receive noise disappears. Any signal to be heard must now be slightly stronger than the average received noise. Further clockwise rotation will increase the threshold level which a signal must overcome in order to be heard. Only strong signals will be heard at the maximum clockwise setting.
- 6. ANL/OFF SWITCH:** When placed in the ANL position the Automatic Noise Limiter circuit is activated. The ANL circuit reduces impulse noise.

- 7. CHANNEL SELECTOR SWITCH:** This switch selects the desired channel for transmission and reception. All channels, except channel 9, may be used for communications between stations operating under different license. Channel 9 has been reserved by the D.O.C. for emergency communications involving the immediate safety of individ-

uals or immediate protection of property. Channel 9 also may be used to render assistance to a motorist. This in a D.O.C. rule and applies to all operators of citizens band radios.

- 8. TX INDICATOR:** Light Emitting Diode (LED) which indicates the mode of operating. It indicates red while transmitting.



- 9. ANTENNA CONNECTOR:** This female connector permits connection of the transmission line cable male connector (PL-259) to the transceiver.
- 10. POWER CORD:** A power cord is supplied with the radio.

- 11. EXTERNAL SPEAKER:** The External Speaker Jack is used for remote receiver monitoring. The external speaker should have 8-ohm impedance and be rated to handle at least 4.0 watts. When the external speaker is plugged in, the internal speaker is automatically disconnected.

# OPERATION

## OPERATING PROCEDURE TO RECEIVE

1. Be sure that the power source, antenna and microphone are connected to the proper connectors before going to the next steps.
2. Turn the unit ON by rotating the Volume Control clockwise.
3. Set the Channel Selector Switch to the desired channel.
4. Set the Volume Control to a comfortable listening level.
5. Listen to the background noise from the speaker. Turn the Squelch Control slowly clockwise until the noise JUST disappears (no signal should be present). Leave the control at this setting. The SQUELCH is now properly adjusted. The receiver will remain quiet until a signal is actually received. Do not advance the control too far, or some of the weaker signals will not be heard.

## OPERATING PROCEDURE TO TRANSMIT

**CAUTION:** The transceiver Voltage Standing Wave Ratio (V.S.W.R.) mea-

surement must be performed prior to the use of the transmitter. A.V.S.W.R. in excess of 2 : 1 may damage the transmitter.

1. Be sure the operator has read and understands D.O.C. Rules and Regulations prior to operating the transmitter.
2. Select the desired channel.
3. If the channel is clear, depress the push-to-talk switch on the microphone and speak in a normal voice.

## PREVENTIVE MAINTENANCE

At six to twelve month intervals, the following system checks should be made:

1. Check Standing Wave Ratio (SWR).
2. Inspect all electrical connections to ensure that they are tight.
3. Inspect antenna coaxial cable for wear or breaks on shielding.
4. Inspect all screws and other mounting hardware for tightness.



## INSTALLATION

### MOBILE STATION INSTALLATION

Plan the location of the transceiver and microphone bracket before starting the installation. Select a location that is convenient for operation and does not interfere with the driver or passenger in the vehicle. The radio should be securely fastened to some solid face, using the mounting bracket and self-tapping screws which are provided.

### MOBILE STATION ANTENNA

Since the maximum allowable power output of the transmitter is limited by the D.O.C., the antenna is a very important factor affecting transmission distance. It is for this reason that we strongly recommend that you install only a quality antenna in your new citizens band system. You have just purchased a superior transceiver. Don't diminish its performance by installing an inferior antenna.

Only a properly matched antenna system will allow maximum power transfer from the 50-ohm transmission line to the radiating element. Your local dealer is qualified to assist you in the selection of the proper antenna to meet your application requirements.

For automobile installation, the whip antenna may be used with good effect. The most efficient and practical installation is a full quarter wave whip antenna mounted on the rear deck or fender top midway between the rear window and bumper.

A short "loaded" whip antenna is more convenient to install on your automo-

bile, although the efficiency is less than a full quarter wave whip antenna.

For marine installation, consult your dealer for information regarding an adequate grounding system and prevention of electrolysis fittings between the hull and water.

### CONNECTING THE POWER CORDS

With regard to the connection of the power cords, it may be possible or desirable to connect the (red lead for negative ground system) or (black lead for positive ground system) to the ignition switch accessory terminal so that the transceiver is automatically turned off when the ignition switch (key) is turned off.

Alternately, the power lead may be connected to an available terminal on the fuse block or even to a point in the wiring harness. Care must be taken, however, to guard against a short circuit condition. When in doubt, please contact your vehicle dealer for specific information for your vehicle.

### GROUND INFORMATION

**NOTE:** This transceiver may be installed and used in any 12-volt DC negative or positive ground system vehicle.

Most newer cars and small trucks use a negative ground system, while some older cars and some newer, larger trucks may use a positive ground system.

A negative ground system is generally identified by the (-) battery terminal being connected to the vehicle motor block, but if you cannot determine the polarity of your vehicle, it is suggested that you consult your vehicle dealer for definite information.

### NEGATIVE GROUND SYSTEM

If you are operating on a negative ground system, connect the red DC power cord from the transceiver to the positive, or (+) battery terminal or other

convenient point and connect the black power lead to the chassis or vehicle frame, or (-) battery terminal.

### POSITIVE GROUND SYSTEM

If you are operating on a positive ground system, connect the black DC power cord from the transceiver to the negative, or (-), battery terminal or other convenient point, and connect the red power lead to the chassis or vehicle frame, or (+) battery terminal.

# SPECIFICATIONS

## GENERAL

Channels:	40.
Frequency Range:	26.965 to 27.405 MHz.
Frequency Control:	Phase Locked Loop (PLL) synthesizer.
Frequency Tolerance:	$\pm 0.005\%$ .
Operating Temperature Range:	$-30^{\circ}\text{C}$ to $+ 50^{\circ}\text{C}$ .
Microphone:	Plug in DIN type: Electret
Input Voltage:	13.8V DC nom. (positive or negative ground).
Current Drain:	Transmit: AM full mod., 1.7A (maximum). Receive: Squelched, 0.23A; full audio output 1.4A (nominal).
Size (W x L x H):	$4\text{-}\frac{9}{16}\text{"W}$ (116mm) x $6\text{-}\frac{11}{16}\text{"L}$ (170mm) x $1\text{-}\frac{1}{2}\text{"H}$ (38mm)
Weight:	1.1 kg
Antenna Connector:	UHF, SO-239.
Semiconductors:	10 transistors, 23 diodes, 7 integrated circuits
LED Meter:	Indicates relative power output and received signal strength.

## TRANSMITTER

Power Output:	4 watts.
Modulation:	Class B amplitude modulation.
Frequency Response:	300 — 2500 Hz
Output Impedance:	50 ohms, unbalanced.

## RECEIVER

Sensitivity:	$0.5\mu\text{V}$ for 10 dB; $(S + N)/N$ typical (limit: $1.0\mu\text{V}$ ).
Selectivity:	6 dB @ 7 kHz, 70 dB @ 10 kHz.
Image Rejection:	80 dB. typical.
Adjacent-Channel Rejection:	60 dB, typical
IF Frequencies:	Double conversion, 1st: 10.692 MHz. 2nd: 450 KHz.
Automatic Gain Control (AGC)	Less than 10 dB change in audio output for inputs from 10 to 50,000 microvolts.
Squelch:	Adjustable; threshold less than $1\mu\text{V}$ .
Audio Output Power:	7 watts max. into 8 ohms.
Frequency Response:	300 to 2000 Hz.
Distortion:	Less than 10% at 4 watts. @ 1000 Hz.
Built-in Speaker:	16 ohms, round.
External Speaker (Not supplied):	8 ohms; disables internal speaker when connected.



## OPERATOR TROUBLESHOOTING

Should the unit malfunction or not perform properly, the operator should perform the procedures indicated below:

1. If the transceiver is completely inoperative.
  - \* Check the power cord and fuse.
2. If trouble is experienced with receiving.
  - \* Check ON/OFF VOLUME CONTROL setting.
  - \* Be sure SQUELCH is adjusted properly. If the radio oversquelched?
  - \* Check to see that the radio is switched to an operational mode.
3. If trouble is experienced with transmitting.
  - \* Check to see that the transmission line (coaxial cable) is securely connected to the ANTENNA CONNECTOR.
  - \* Be sure that the antenna is fully extended for proper operation.
  - \* Be sure that all transmission line (coaxial cable) connections are secure and free of corrosion.

We highly recommend that you consult a qualified radiotelephone technician for the servicing and alignment of this CB radio product.

Please refer to the WARNING information contained in this Owner's Guide.

**(NOTE:** When ordering parts, it is essential to specify the correct model number and serial number of the unit.)

# WARRANTY

**WARRANTOR.** SANTRONIC AGENCIES PTY. LTD. 13 Garema Circuit, Kingsgrove NSW 2208 ("SANTRONIC").

**ELEMENTS OF WARRANTY.**

SANTRONIC warrants, for the duration of this warranty, its UNIDEN CB Product to be free from defects in materials and craftsmanship with only the limitation or exclusions set out below.

**WARRANTY DURATION.** This Warranty shall terminate and be of no further effect One (1) year after the date of original purchase of the Product or at the time the Product is (a) damaged or not maintained as reasonable and necessary, (b) modified, (c) improperly installed, (d) is repaired by someone other Warrantor for a defect or malfunction covered by this Warranty, or (e) used in a manner or purpose for which the Product was not intended.

**PARTS COVERED.** This Warranty covers all components of the Products.

**STATEMENT OF REMEDY.** In the event that the Product does not conform to this Warranty at any time while this Warranty is effective, Warrantor will repair the defect and return it to you prepaid, without charge for parts, service, or any other costs incurred by Warrantor or

its representatives in connection with the performance of this Warranty. In addition, if the Product contains a defect or malfunction which is not repaired after a reasonable number of attempts by Warrantor to repair the Product, the Product or defective component will at our discretion, be replaced without charge, when the defective product is delivered to the warrantor at 13 Garema Circuit Kingsgrove NSW 2208 free and clear of all liens and encumbrances. Please note that while the Product will be remedied under this Warranty without charge, THIS WARRANTY DOES NOT COVER OR PROVIDE FOR THE REIMBURSEMENT OR PAYMENT OF INCIDENTAL OR CONSEQUENTIAL DAMAGES.

**PROCEDURE FOR OBTAINING PERFORMANCE OF WARRANTY.** In the event that the Product does not conform to this Warranty, the Product should be shipped prepaid to Warrantor at 13 Garema Circuits Kingsgrove NSW 2208. THE ORIGINAL OR COPY OF THE SALES RECEIPT OR OTHER VALID EVIDENCE OF THE DATE OF THE ORIGINAL PURCHASE MUST ACCOMPANY THIS PRODUCT.

## **Santronic**

AGENCIES PTY.LTD.

13 GAREMA CIRCUIT, KINGSGROVE  
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P.O. Box 12, Kingsgrove, NSW 2208

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EAST PRESTON VIC 3072  
PHONE: (03) 484 0373

BRISBANE: 3/12 RANDALL ST  
SLACKS CREEK, OLD 4127  
PHONE 07 290 1188

PERTH: 23 GEDDES ST.,  
BALCATTWA WA 6021  
PHONE: (09) 344 3937